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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.  | CONFIRMATION NO. |
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| 10/662,357  | 09/16/2003  | Shunpei Yamazaki     | 12732-167001         | 9624             |
| 26171   | 7590        | 11/02/2005           | EXAMINER             |                  |
| FISH & RICHARDSON P.C.<br>P.O. BOX 1022<br>MINNEAPOLIS, MN 55440-1022 |             |                      | RAABE, CHRISTOPHER M |                  |
|   |             |                      | ART UNIT             | PAPER NUMBER     |
|   |             |                      | 2879                 |                  |

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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|                              |   |  |  |
|------------------------------|---|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/662,357    | <b>Applicant(s)</b><br>YAMAZAKI ET AL. |  |
|                              | <b>Examiner</b><br>Christopher M. Raabe | <b>Art Unit</b><br>2879                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/12/05</u> . | 6) <input type="checkbox"/> Other: ____.  |

**DETAILED ACTION**

1. Amendments filed August 12, 2005 have been entered and acknowledged by the examiner.

Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3,23 are rejected under 35 U.S.C. 102(b) as being anticipated by Haskal et al. (U.S. Patent 5952778).

With regard to claim 1,

Haskal et al. disclose a light-emitting apparatus comprising: a light-emitting device including a first electrode formed over a substrate, an electroluminescent film formed over the first electrode, and a second electrode formed over the electroluminescent film (column 1, lines 55-60); an inorganic insulating film formed over the second electrode (column 1, lines 60-61 and column 3, lines 31,46-52); a film containing fluoroplastics formed over the inorganic insulating film (column 3, lines 58-63) and a sealing substrate positioned over the film containing fluoroplastics (column 1, lines 55-61, column 3, lines 31,46-52,60-65, and column 4, lines 55-65).

With regard to claim 2,

Haskal et al. disclose a light-emitting apparatus, wherein the film containing fluoroplastics is one type of polymer selected from polytetrafluoroethylene, tetrafluoroethylene-hexafluoropropylene copolymer, polychlorotrifluoroethylene, tetrafluoroethylene-ethylene copolymer, polyvinyl fluoride, and polyvinylidene fluoride (column 3, lines 58-63).

With regard to claim 3,

Haskal et al. disclose a light-emitting apparatus, wherein the inorganic insulating film is one type selected from silicon nitride, silicon oxynitride, aluminum nitride, and aluminum oxynitride (column 3, lines 48-52).

With regard to claim 23,

Haskal et al. disclose a light-emitting apparatus wherein the light-emitting device is sealed by the substrate and the sealing substrate (column 1, lines 55-61, column 3, lines 31,46-52, 60-65, and column 4, lines 55-65).

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

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claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 4-22, 24-28 are rejected under 35 U.S.C. 103(a) as being anticipated by Yamazaki et al. (U.S. Pre-grant Publication 2001/0055841) in view of Haskal et al. (as above).

With regard to claim 4,

Yamazaki et al. disclose a light-emitting apparatus comprising: a light-emitting device including a first electrode formed over a substrate, an electroluminescent film formed over the first electrode, and a second electrode formed over the electroluminescent film (paragraph 2, lines 1-3); an inorganic insulating film formed over the second electrode (paragraph 105, and 388 of fig 8b); an organic insulating film formed over the inorganic insulating film (paragraphs 133,134, and 1007 of fig 8b); and a film containing fluoroplastics formed over the organic insulating film (paragraph 135, and 1001 of fig 8b).

Yamazaki et al. do not disclose a sealing substrate positioned over the film containing fluoroplastics.

Haskal et al. do disclose a sealing substrate positioned over the film containing fluoroplastics (column 1, lines 55-61; column 3, lines 31,46-52,60-65; and column 4, lines 55-65).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the sealing substrate of Haskal et al. into the apparatus of Yamazaki et al. in order to increase the impact resistance of the device.

With regard to claim 5,

Yamazaki et al. disclose a light-emitting apparatus, wherein the film containing fluoroplastics is one type of polymer selected from polytetrafluoroethylene, tetrafluoroethylene-hexafluoropropylene copolymer, polychlorotrifluoroethylene, tetrafluoroethylene-ethylene copolymer, polyvinyl fluoride, and polyvinylidene fluoride (paragraph 135).

With regard to claim 6,

Yamazaki et al. disclose a light-emitting apparatus, wherein the inorganic insulating film is one type selected from silicon nitride, silicon oxynitride, aluminum nitride, and aluminum oxynitride (paragraph 105).

With regard to claim 7,

Yamazaki et al. disclose a light-emitting apparatus, wherein the organic insulating film is formed of any one of acrylic, polyamide, or polyimide (paragraph 134).

With regard to claim 8,

Yamazaki et al. disclose a light-emitting apparatus comprising: a light-emitting device including a first electrode, an electroluminescent film formed over the first electrode, and a second electrode formed over the electroluminescent film (paragraph 2, lines 1-3); a first inorganic insulating film formed over the second electrode (paragraph 105, and 388 of fig 8b);

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an organic insulating film formed over the inorganic insulating film (paragraphs 133, 134, and 1007 of fig 8b); a second inorganic insulating film formed over the organic insulating film (paragraph 136, and 1008b of fig 8b); and a film containing fluoroplastics formed over the second inorganic insulating film (paragraph 135, and 1001 of fig 8b).

With regard to claim 9,

Yamazaki et al. disclose a light-emitting apparatus, wherein the film containing fluoroplastics is one type of polymer selected from polytetrafluoroethylene, tetrafluoroethylene-hexafluoropropylene copolymer, polychlorotrifluoroethylene, tetrafluoroethylene-ethylene copolymer, polyvinyl fluoride, and polyvinylidene fluoride (paragraph 135).

With regard to claim 10,

Yamazaki et al. disclose a light-emitting apparatus, wherein the first inorganic insulating film is one type selected from silicon nitride, silicon oxynitride, aluminum nitride, and aluminum oxynitride (paragraph 105).

Yamazaki et al. do not disclose a second inorganic insulating film of the same type as the first inorganic insulating film.

Yamazaki et al. do disclose, in the disclosure of the first inorganic insulating film (paragraph 105), the functional equivalence of a DLC film and a silicon nitride film, and, in the disclosure of the second inorganic insulating film (paragraph 136), the use of a DLC film.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the silicon nitride (used in the first inorganic insulating film) into a second inorganic insulating film in order to reduce the types of required materials for manufacture.

With regard to claim 11,

Yamazaki et al. disclose a light-emitting apparatus, wherein the organic insulating film is formed of any one of acrylic, polyamide, or polyimide (paragraph 134).

With regard to claim 12,

Yamazaki et al. disclose a light-emitting apparatus comprising: a light-emitting device including a first electrode connecting electrically to a TFT formed over a substrate via an insulating film (paragraph 11, and 382,383 of fig 6b), an electroluminescent film formed over the first electrode (385 of fig 6b), and a second electrode formed over the electroluminescent film (386 of fig 6b); an inorganic insulating film formed over the second electrode (paragraph 105, and 388 of fig 8b); and a film containing fluoroplastics formed over the inorganic insulating film (paragraph 135, and 1001 of fig 8b).

Yamazaki et al. do not disclose a sealing substrate positioned over the film containing fluoroplastics.

Haskal et al. do disclose a sealing substrate positioned over the film containing fluoroplastics (column 1, lines 55-61; column 3, lines 31,46-52,60-65; and column 4, lines 55-65).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the sealing substrate of Haskal et al. into the apparatus of Yamazaki et al. in order to increase the impact resistance of the device.

With regard to claim 13,

Yamazaki et al. disclose a light-emitting apparatus, wherein the film containing fluoroplastics is one type of polymer selected from polytetrafluoroethylene, tetrafluoroethylene-



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hexafluoropropylene copolymer, polychlorotrifluoroethylene, tetrafluoroethylene-ethylene copolymer, polyvinyl fluoride, and polyvinylidene fluoride (paragraph 135).

With regard to claim 14,

Yamazaki et al. disclose a light-emitting apparatus, wherein the inorganic insulating film is one type selected from silicon nitride, silicon oxynitride, aluminum nitride, and aluminum oxynitride (paragraph 105).

With regard to claim 15,

Yamazaki et al. disclose a light-emitting apparatus comprising: a light-emitting device including a first electrode connecting electrically to a TFT formed over a substrate via an insulating film (paragraph 11, and 382,383 of fig 6b), an electroluminescent film formed over the first electrode (385 of fig 6b), and a second electrode formed over the electroluminescent film (386 of fig 6b); an inorganic insulating film formed over the second electrode (paragraph 105, and 388 of fig 8b); an organic insulating film formed over the inorganic insulating film (paragraphs 133,134, and 1007 of fig 8b); and a film containing fluoroplastics formed over the organic insulating film (paragraph 135, and 1001 of fig 8b).

Yamazaki et al. do not disclose a sealing substrate positioned over the film containing fluoroplastics.

Haskal et al. do disclose a sealing substrate positioned over the film containing fluoroplastics (column 1, lines 55-61; column 3, lines 31,46-52,60-65; and column 4, lines 55-65).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the sealing substrate of Haskal et al. into the apparatus of Yamazaki et al. in order to increase the impact resistance of the device.

With regard to claim 16,

Yamazaki et al. disclose a light-emitting apparatus, wherein the film containing fluoroplastics is one type of polymer selected from polytetrafluoroethylene, tetrafluoroethylene-hexafluoropropylene copolymer, polychlorotrifluoroethylene, tetrafluoroethylene-ethylene copolymer, polyvinyl fluoride, and polyvinylidene fluoride (paragraph 135).

With regard to claim 17,

Yamazaki et al. disclose a light-emitting apparatus, wherein the inorganic insulating film is one type selected from silicon nitride, silicon oxynitride, aluminum nitride, and aluminum oxynitride (paragraph 105).

With regard to claim 18,

Yamazaki et al. disclose a light-emitting apparatus, wherein the organic insulating film is formed of any one of acrylic, polyamide, or polyimide (paragraph 134).

With regard to claim 19,

Yamazaki et al. disclose a light-emitting apparatus comprising: a light-emitting device including a first electrode connecting electrically to a TFT formed over a substrate via an insulating film (paragraph 11, and 382,383 of fig 6b), an electroluminescent film formed over the first electrode (385 of fig 6b), and a second electrode formed over the electroluminescent

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film (386 of fig 6b); a first inorganic insulating film formed over the second electrode (paragraph 105, and 388 of fig 8b); an organic insulating film formed over the first inorganic insulating film (paragraphs 133,134, and 1007 of fig 8b); a second inorganic insulating film formed over the organic insulating film (paragraph 136, and 1008b of fig 8b); and a film containing fluoroplastics formed over the second inorganic insulating film (paragraph 135, and 1001 of fig 8b).

Yamazaki et al. do not disclose a sealing substrate positioned over the film containing fluoroplastics.

Haskal et al. do disclose a sealing substrate positioned over the film containing fluoroplastics (column 1, lines 55-61; column 3, lines 31,46-52,60-65; and column 4, lines 55-65).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the sealing substrate of Haskal et al. into the apparatus of Yamazaki et al. in order to increase the impact resistance of the device.

With regard to claim 20,

Yamazaki et al. disclose a light-emitting apparatus, wherein the film containing fluoroplastics is one type of polymer selected from polytetrafluoroethylene, tetrafluoroethylene-hexafluoropropylene copolymer, polychlorotrifluoroethylene, tetrafluoroethylene-ethylene copolymer, polyvinyl fluoride, and polyvinylidene fluoride (paragraph 135).

With regard to claim 21,

Yamazaki et al. disclose a light-emitting apparatus, wherein the first inorganic insulating film is one type selected from silicon nitride, silicon oxynitride, aluminum nitride, and aluminum oxynitride (paragraph 105).

Yamazaki et al. do not disclose a second inorganic insulating film of the same type as the first inorganic insulating film.

Yamazaki et al. do disclose, in the disclosure of the first inorganic insulating film (paragraph 105), the functional equivalence of a DLC film and a silicon nitride film, and, in the disclosure of the second inorganic insulating film (paragraph 136), the use of a DLC film.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the silicon nitride (used in the first inorganic insulating film) into a second inorganic insulating film in order to reduce the types of required materials for manufacture.

With regard to claim 22,

Yamazaki et al. disclose a light-emitting apparatus, wherein the organic insulating film is formed of any one of acrylic, polyamide, or polyimide (paragraph 134).

With regard to claims 24-28,

Yamazaki et al. disclose the light emitting apparatus.

Yamazaki et al. do not disclose a sealing substrate positioned over the film containing fluoroplastics.

Haskal et al. do disclose a light-emitting device being sealed by a substrate and a sealing substrate (column 1, lines 55-61; column 3, lines 31,46-52,60-65; and column 4, lines 55-65).

Utilizing the reasoning in the rejections of claims 4,8,12,15,19, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the sealing substrate of Haskal et al. into the apparatus of Yamazaki et al. in order to increase the impact resistance of the device

***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Raabe whose telephone number is 571-272-8434. The examiner can normally be reached on m-f 7am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CR

  
ASHOK PATEL  
PRIMARY EXAMINER